Supplemental Material

Figure Legends:

Figure 1s: Effect of slice thickness on temperature estimate error based on the thermal equilibrium model proposed by Haines (19). Model parameters are: electrode diameter 3mm, electrode temperature 100˚C , ambient temperature 37˚C. A) Plot of temperature as a function of x and y position on the z = 0 plane through the center of a 100˚C, 3mm diameter, spherical electrode. B) Temperature profiles in the through slice direction for a 4mm slice centered on the electrode position at different distances from the electrode. Note that the through slice temperature variation decreases with increasing distance from the electrode. C) Exact temperature (at z=0) versus temperature averaged over 4mm slice (z=-2 to +2mm) at different distances from center of electrode . D) Percentage error of temperature averaged over 4mm slice versus exact temperature (at z=0) at various distances from the electrode. Note that the error due to through slice averaging decreases with increasing distance from the electrode.

Figures:

Figure 1s: